

1 I claim:

2 1. An improved liquid sampling device comprising:
3 an elongate, substantially cylindrical conduit member
4 having first and second conduit ends;
5 a first conduit member terminus;
6 a second conduit member terminus, said second conduit
7 member terminus being shaped to generally define a
8 second convex dome extending outwardly from said
9 conduit member at said second conduit end, said
10 second convex dome portion of said second conduit
11 member terminus being substantially centered on
12 the longitudinal axis of symmetry of said conduit
13 member, said second conduit member terminus having
14 an in-take orifice defined therethrough and a
15 valve member for valving passage of fluid through
16 said in-take orifice; and
17 a flow control insert having a flow control orifice and
18 being sized and shaped for telescopic engagement
19 with said in-take orifice, said flow control
20 orifice having a cumulatively lesser cross section
21 than said intake orifice.

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1 2. The apparatus of Claim 1 wherein said first
2 conduit member terminus is shaped to generally define a
3 first convex dome extending outwardly from said conduit
4 member at said first conduit end, said first convex
5 dome portion of said first conduit member terminus
6 being substantially centered on the longitudinal axis
7 of symmetry of said conduit member, said convex dome
8 portion having cord attachment means

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10 3. The apparatus of claim 2 wherein said cord
11 attachment means comprises of first and second
12 attachment orifices defined through said dome portion
13 of said first conduit member terminus and separated by
14 a portion of said dome portion of said first conduit
15 member terminus, whereby a terminal end of an elongate
16 cording member may pass into said apparatus through
17 said first attachment orifice and exit said apparatus
18 through said second attachment orifice whereafter said
19 terminal end of said cording member may be secured to a
20 medial portion of said cording member to secure an
21 attachment between said cording member and said
22 apparatus.

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1 4. The apparatus of claim 3 further comprising
2 negative buoyancy means for adjusting buoyancy of said
3 apparatus when submersed in liquid.

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5 5. The apparatus of claim 1 wherein said first
6 terminus member is a removable cap-like member having a
7 first nesting lip extending from the circumferential
8 margin of said first convex dome, said first nesting
9 lip being configured for reversibly, slidably and
10 snugly nesting within said conduit member at said first
11 conduit member end for reversibly attaching said first
12 terminus member to said conduit member.

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14 6. The apparatus of claim 1 wherein said second
15 terminus member is a removable cap-like member having a
16 second nesting lip extending from the circumferential
17 margin of said second convex dome, said second nesting
18 lip being configured for reversibly, slidably and
19 snugly nesting within said conduit member at said
20 second conduit member end for reversibly attaching said
21 second terminus member to said conduit member.

1 7. The apparatus of claim 1 wherein said in-take
2 orifice is defined by said second convex dome whereby
3 said in-take orifice is centered on an axis of symmetry
4 of said second convex dome.

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6 8. The apparatus of claim 1, wherein said flow
7 control insert further comprises means for filtering
8 particulates.

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10 9. The apparatus of claim 8 further comprising
11 negative buoyancy means for adjusting buoyancy of said
12 apparatus when submersed in liquid.

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14 10. The apparatus of claim 2 wherein said first
15 terminus member is a removable cap-like member having a
16 first nesting lip extending from the circumferential
17 margin of said first convex dome, said first nesting
18 lip being configured for reversibly, slidably and
19 snugly nesting within said conduit member at said first
20 conduit member end for reversibly attaching said first
21 terminus member to said conduit member.

1 11. The apparatus of claim 2 wherein said second
2 terminus member is a removable cap-like member having a
3 second nesting lip extending from the circumferential
4 margin of said second convex dome, said second nesting
5 lip being configured for reversibly, slidably and
6 snugly nesting within said conduit member at said
7 second conduit member end for reversibly attaching said
8 second terminus member to said conduit member.

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10 12. The apparatus of claim 2 wherein said in-take
11 orifice is defined by said second convex dome whereby
12 said in-take orifice is centered on an axis of symmetry
13 of said second convex dome.

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15 13. The apparatus of claim 2, wherein said flow
16 control insert further comprises means for filtering
17 particulates.

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19 14. The apparatus of claim 13 further comprising
20 negative buoyancy means for adjusting buoyancy of said
21 apparatus when submersed in liquid.

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1 15. The apparatus of claim 2 further comprising
2 negative buoyancy means for adjusting buoyancy of said
3 apparatus when submersed in liquid.

1 16. An improved method for taking a test well
2 sample comprising the steps of:
3 identifying the recharge rate of a test well;
4 selecting a bailer apparatus comprising:
5 an elongate, substantially cylindrical
6 conduit member having first and second
7 conduit ends;
8 a first conduit member terminus;
9 a second conduit member terminus, said second
10 conduit member terminus being shaped to
11 generally define a second convex dome
12 extending outwardly from said conduit
13 member at said second conduit end, said
14 second convex dome portion of said
15 second conduit member terminus being
16 substantially centered on the
17 longitudinal axis of symmetry of said
18 conduit member, said second conduit
19 member terminus having an in-take
20 orifice defined therethrough and a valve
21 member for valving passage of fluid
22 through said in-take orifice;

1 a flow control insert having a flow control
2 orifice and being sized and shaped for
3 telescopic engagement with said in-take
4 orifice, said flow control orifice
5 having a cumulatively lesser cross
6 section than said intake orifice;

7 selection of said flow control insert following
8 determination of an in-take orifice dimension
9 of said flow control insert which will limit
10 inflow into said apparatus which at a rate
11 substantially equivalent to said recharge
12 rate;

13 adding negative buoyancy means to said apparatus
14 to effect a slightly negative buoyancy when
15 said apparatus is placed atop a liquid column
16 substantially of water;

17 placing said apparatus in a test well to obtain a
18 sample of the contents thereof; and
19 removing said apparatus after said sample is
20 obtained.

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